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02/26/2004

Daniel John Devine

Devine 2-2

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EXAMINER

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Please find below and/or attached an Office communication concerning this application or proceeding.

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**BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES**

Application Number: 10/787,376
Filing Date: February 26, 2004
Appellant(s): DEVINE, DANIEL JOHN

Kevin M. Mason
For Appellant

EXAMINER'S ANSWER

This is in response to the appeal brief filed 06/28/10 appealing from the Office action mailed 02/17/10.

(1) Real Party in Interest

The examiner has no comment on the statement, or lack of statement, identifying by name the real party in interest in the brief.

(2) Related Appeals and Interferences

The examiner is not aware of any related appeals, interferences, or judicial proceedings which will directly affect or be directly affected by or have a bearing on the Board's decision in the pending appeal.

(3) Status of Claims

The following is a list of claims that are rejected and pending in the application:

4, 5, 10, 11, 17 and 18 stand rejected.

(4) Status of Amendments After Final

The examiner has no comment on the appellant's statement of the status of amendments after final rejection contained in the brief.

(5) Summary of Claimed Subject Matter

The examiner has no comment on the summary of claimed subject matter contained in the brief.

(6) Grounds of Rejection to be reviewed on Appeal

The examiner has no comment on the appellant's statement of the grounds of rejection to be reviewed on appeal. Every ground of rejection set forth in the Office action from which the appeal is taken (as modified by any advisory actions) is being maintained by the examiner except for the grounds of rejection (if any) listed under the subheading "WITHDRAWN REJECTIONS." New grounds of rejection (if any) are provided under the subheading "NEW GROUNDS OF REJECTION."

(7) Claims Appendix

The examiner has no comment on the copy of the appealed claims contained in the Appendix to the appellant's brief.

(8) Evidence Relied Upon

6,493,770	Sartore et al	12-2002
5,987,568	Adams et al.	11-1999

(9) Grounds of Rejection

The following ground(s) of rejection are applicable to the appealed claims:

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 4-5, 10-11, 17-18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sartore et al, U.S. Patent No: 6,493,770 [**hereinafter Sartore**] and further in view of Adams et al, U.S. Patent No: 5,987,568 [**hereinafter Adams**].

1. **As per Claim 5, 11 and 18**, Sartore teaches an integrated controller for use in a peripheral device for controlling high speed communications [**see Fig. 2, element 71, "USB Interface"**] between a host computer [**See Fig. 2, element 52**] and at least one peripheral device [**see Fig. 2, element 54**], comprising a processor [**see Fig. 2, element 72 – "CPU"**] integrated with said controller for controlling communications on a bus using one or more communications functions [**see Col. 5, Lines 18-23**], wherein said processor performs at least one function for said peripheral device in addition to said one or more communication functions [**see Col. 5, Lines 25-35**],
2. Sartore teaches the above limitations in addition to further teaching only one controller / processor (**72**) to control both the USB interface and the peripheral device. Although it would be clearly

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inherent that the said CPU controls at least one function for said peripheral device (if not all), Sartore does not provide details on functions of the said peripheral. Adam's teaches the limitation of a single processor in a peripheral performing and controlling functions of the said peripheral device **[see Col. 4, Lines 31-45]**

3. It would be obvious to one of ordinary skill in the art to combine the teachings in order to take advantage of ensuring the peripheral functions properly as designed in addition to communicate with the host effectively. It is for this reason that one of ordinary skill in the art would have been motivated to combine the two teachings.

4. **As per Claim 4, 10 & 17**, Sartore as modified by Adam's above teaches a controller wherein said at least one peripheral device employs said processor to perform each of said functions of said at least one peripheral device **[see Adam's Col. 7, Lines 46-60]**.

(10) Response to Argument

1. **Appellant argument:** Prior art of record fails to teach the limitations of Claims 5, 11 and 18. Most notably, Appellant points to the alleged missing limitation of the CPU in the peripheral that "perform at least one function for said peripheral device in addition to one or more communication functions" **[see Appeal, Page 4, Lines 7-10]**. Appellant argues that CPU (72) in Sartore is "only used to reconfigure the peripheral over a USB interface 71" and that the CPU is "not used for the normal operation of the peripheral **[see Appeal, Page 4, Lines 9-11]**". Thus Appellant argues that the CPU of Sartore is not configured to **provide processing capacity for use by said peripheral device**.

2. **Response to arguments:** Prior to responding to the arguments presented above, it is essential that one understand the subject matter that Appellant claimed to be his invention in slightly greater detail than that provided in "Summary of Claimed Subject Matter" that simply recites the claimed limitations **(See Appeal Brief, Page 2)**. Applicant's submitted specification states that a peripheral device typically

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includes (1) USB device controller having a dedicated processor that allows the peripheral device to communicate with the host computer over the USB bus (**See Specification, Page 1, Lines 16-19**) and (b) Primary microprocessor for performing normal functions of the peripheral device (**see Specification, Page 1, Lines 19-21**). Rightfully so, Appellant recognizes the inefficiency associated with such embodiment in terms of increased size, manufacturing costs and inefficient use of processing resources. To remedy this, Appellant proposes a USB device controller that provides excess processing resources for a peripheral device. Thus, reading the claimed invention in light of above summary of invention, claims require four basic elements:

- (i) Peripheral device
- (ii) Processor (within peripheral device); said processor configured to
- (iii) Control communications on the bus and
- (iv) Provide processing capacity for

3. Prior art of Sartore differs from the problem that the Appellant attempts to resolve is on the point that Sartore only includes a single controller responsible for the functions of the device and provide processing capacity for the communications cited for USB interface. It should be noted that USB interface does not require a presence of a USB controller as is the case for Sartore. This is consistent with Appellant's own disclosure in Figure 3 that includes said shared processor (**See Appellant's Specification, Fig. 3, element 280**) in question interconnected with the plurality of interfaces [**See Appellant's Specification, Fig. 3, elements 315 (Test Interface), 325 (DMA controller) 335 (USB interface) etc**] to allow for communication with external devices.

4. Nonetheless, given that the Appellant does not argue on the merits of the processor providing communication control, Examiner will focus the remainder of the response on last element ("provide processing capacity for the peripheral") that the Appellant contests is missing inherently. Appellant's argument, as discussed briefly above, state that CPU of Sartore does not disclose performing at least one function for said peripheral device in addition to said one or more communication functions. Therefore, we are left to argue whether or not it is inherent that the peripheral processor performs "at least one function for said peripheral device." Naturally, Appellant does not believe such inherency to be true

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because as per Appellant's arguments, if such fact was widely accepted, then there would exist prior art disclosing such a feature.

4. Examiner strongly disagrees with Appellant's last statement because it would be counter productive and extensively redundant on part of the inventors to state details that are obviously inherent in a system. For example, Sartore discloses a system for reconfiguring a peripheral device by downloading information from a host and electronically simulating a physical disconnection and reconnected to reconfigure the device (**see Title & Abstract**). Some of the said peripheral devices that Sartore notes include: *printers, modems, keyboards* and *mouse* among others [**see Sartore, Col. 1, Lines 20-28**]. Thus, Sartore is modifying the processor already present in a peripheral to include functionality of executing a simulated disconnection and reconnection. The said modifications do not require the peripheral device to include an additional processor or alter the embodiment of the peripheral in question. Therefore, the processor residing on the peripheral will maintain its normal functions without Sartore needing to explicitly state what such functions are. One could not reasonably expect Sartore to further detail the functions of a processor in for example, a printer or a modem, since those elements are widely known to those skilled in the art.

5. Additionally, even if for the moment we were to accept the notion that it is unreasonable to assume that a processor of a peripheral would provide some form of processing capacity for the said peripheral in addition to the added communication functionality provided by Sartore, one can not ignore the teachings of Adams et al as a secondary reference. This is so because absent the processor of peripheral providing said processing capacity for the functions of the said peripheral, the only alternative would be for the host to assume such responsibilities. However, Adams discloses an apparatus wherein not only does the digital signal processor perform and control assigned signal processing functions of the peripheral, The invention of Adams does so without the need to incorporate dedicated ROM and Ram into the peripheral module [**see Adams, Col. 4, Lines 31-45**].

6. It is for the reasons stated above that the Examiner submits that prior art of record of Sartore and Adams fully read on the claimed invention as detailed in the Office Action mailed on 02/17/2010.

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(11) Related Proceeding(s) Appendix

No decision rendered by a court or the Board is identified by the examiner in the Related Appeals and Interferences section of this examiner's answer.

For the above reasons, it is believed that the rejections should be sustained.

Respectfully submitted,

/Jasjit S Vidwan/

Examiner, Art Unit 2182

Conferees:

/Tariq Hafiz/

Supervisory Patent Examiner, Art Unit 2182

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Supervisory Patent Examiner, Art Unit 2100